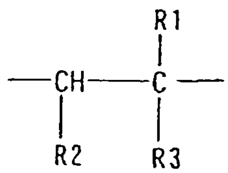
WHAT IS CLAIMED IS:

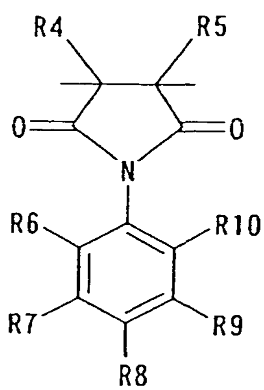
1. A transparent heat-resistant resin optical material comprising a copolymer comprising an olefin residue unit represented by the following formula (i):



(i)

wherein R1, R2, and R3 each represents hydrogen or an alkyl group having from 1 to 6 carbon atoms, and

an N-phenyl-substituted maleimide residue unit represented by the following formula (ii):



(ii)

wherein R4 and R5 each represents hydrogen or a linear or branched alkyl group having from 1 to 8 carbon atoms; R7, R8, and R9 each represents hydrogen, a halogen based element, a carboxylic acid, a carboxylic acid ester, a hydroxyl group, a cyano group, a nitro group, or a linear or branched alkyl group having from 1 to 8 carbon atoms; and R6 and R10 each represents hydrogen, a halogen based element, a carboxylic acid, a carboxylic acid ester, a hydroxyl group, a cyano group, a nitro group, or a linear or

branched alkyl group having from 1 to 8 carbon atoms, and when at least one of R6 or R10 represents hydrogen, the other should not be hydrogen but represent a halogen based element, a carboxylic acid, a carboxylic acid ester, a hydroxyl group, a cyano group, a nitro group, or a linear or branched alkyl group having from 1 to 8 carbon atoms,

the copolymer having a weight average molecular weight, as reduced into standard polystyrene, of from 5×10^3 to 5×10^6, and the transparent heat-resistant resin optical material exhibiting negative birefringence.

2. The transparent heat-resistant resin optical material as claimed in claim 1, wherein the copolymer comprising an olefin residue unit represented by the formula (i) and an N-phenyl-substituted maleimide reside unit represented by the formula (ii) is an alternating copolymer.

3. The transparent heat-resistant resin optical material as claimed in claim 1, wherein the olefin residue unit represented by the formula (i) is a residue unit derived from isobutene; and the N-phenyl-substituted maleimide residue represented by the formula (ii) is a residue unit derived from one or more members selected from the group consisting of N-(2-methylphenyl)maleimide, N-(2,6-diethylphenyl)maleimide, and N-(2,6-diisopropylphenyl)maleimide.

4. The transparent heat-resistant resin optical material as claimed in claim 1, wherein the transparent heat-resistant resin optical material is a film or a sheet.

5. The transparent heat-resistant resin optical material as claimed in claim 1,

wherein the transparent heat-resistant resin optical material is an optical compensating film.

6. The transparent heat-resistant resin optical material as claimed in claim 1, wherein the transparent heat-resistant resin optical material is a retardation film.

7. The transparent heat-resistant resin optical material as claimed in claim 1, wherein the transparent heat-resistant resin optical material is a film or a sheet prepared by uniaxially or multiaxially stretch molding a copolymer comprising the olefin residue unit represented by the formula (i) and the N-phenyl-substituted maleimide residue unit represented by the formula (ii) and having a weight average molecular weight, as reduced into standard polystyrene, of from 5×10^3 to 5×10^6 in the temperature range, based on a glass transition temperature of the copolymer, of from [(glass transition temperature) – 20°C] to [(glass transition temperature) + 30°C].

8. The transparent heat-resistant resin optical material as claimed in claim 1, wherein the transparent heat-resistant resin optical material is a film or a sheet prepared by uniaxially or multiaxially stretch molding a copolymer comprising the olefin residue unit represented by the formula (i) and the N-phenyl-substituted maleimide residue unit represented by the formula (ii) and having a weight average molecular weight, as reduced into standard polystyrene, of from 5×10^3 to 5×10^6 in the temperature range, based on a glass transition temperature of the copolymer, of from [(glass transition temperature) – 20°C] to [(glass transition temperature) + 20°C].

9. The transparent heat-resistant resin optical material as claimed in claim 1,

wherein the transparent heat-resistant resin optical material is a retardation film exhibiting negative birefringence and having a relationship of three-dimensional refractive indexes of $nz \geq ny > nx$ in the case where when the stretching direction is an x-axis within the film plane, the perpendicular direction within the film plane is a y-axis, and the vertical direction outside the film plane is a z-axis, nx stands for a refractive index in the x-axis direction, ny stands for a refractive index in the y-axis direction, and nz stands for a refractive index in the z-axis direction.

10. The transparent heat-resistant resin optical material as claimed in claim 1, wherein the transparent heat-resistant resin optical material is a film having negative birefringence, which is prepared by molding a copolymer comprising the olefin residue unit represented by the formula (i) and the N-phenyl-substituted maleimide residue unit represented by the formula (ii) and having a weight average molecular weight, as reduced into standard polystyrene, of from 5×10^3 to 5×10^6 into a film and further uniaxially stretching the copolymer in the temperature range, based on a glass transition temperature of the copolymer, of from [(glass transition temperature) – 20°C] to [(glass transition temperature) + 30°C], the film being a retardation film having a relationship of three-dimensional refractive indexes after uniaxial stretching of $nz \geq ny > nx$ in the case where when the stretching direction is an x-axis within the film plane, the perpendicular direction within the film plane is a y-axis, and the vertical direction outside the film plane is a z-axis, nx stands for a refractive index in the x-axis direction, ny stands for a refractive index in the y-axis direction, and nz stands for a refractive index in the z-axis direction.

11. The transparent heat-resistant resin optical material as claimed in claim 1,

wherein the transparent heat-resistant resin optical material is a retardation film exhibiting negative birefringence and having a relationship of nz > ny ≥ nx or nz > nx ≥ ny in the case where the biaxial stretching directions are an x-axis within the film plane and a y-axis within the film plane, and the vertical direction outside the film plane is a z-axis, nx stands for a refractive index in the x-axis direction, ny stands for a refractive index in the y-axis direction, and nz stands for a refractive index in the z-axis direction.

12. The transparent heat-resistant resin optical material as claimed in claim 1, wherein the transparent heat-resistant resin optical material is a film having negative birefringence, which is prepared by molding a copolymer comprising the olefin residue unit represented by the formula (i) and the N-phenyl-substituted maleimide residue unit represented by the formula (ii) and having a weight average molecular weight, as reduced into standard polystyrene, of from 5×10^3 to 5×10^6 into a film and further biaxially stretching the copolymer in the temperature range, based on a glass transition temperature of the copolymer, of from [(glass transition temperature) – 20°C] to [(glass transition temperature) + 30°C], the film being a retardation film having a relationship of three-dimensional refractive indexes after biaxial stretching of nz > ny ≥ nx or nz > nx ≥ ny in the case where the biaxial stretching directions are an x-axis within the film plane and a y-axis within the film plane, and the vertical direction outside the film plane is a z-axis, nx stands for a refractive index in the x-axis direction, ny stands for a refractive index in the y-axis direction, and nz stands for a refractive index in the z-axis direction.

13. The transparent heat-resistant resin optical material as claimed in claim 10, wherein the transparent heat-resistant resin optical material is a retardation film prepared by uniaxially stretching the copolymer in the temperature range, based on a glass

transition temperature of the copolymer, of from [(glass transition temperature) – 20°C] to [(glass transition temperature) + 20°C].

14. The transparent heat-resistant resin optical material as claimed in claim 12, wherein the transparent heat-resistant resin optical material is a retardation film prepared by biaxially stretching the copolymer in the temperature range, based on a glass transition temperature of the copolymer, of from [(glass transition temperature) – 20°C] to [(glass transition temperature) + 20°C].

15. The transparent heat-resistant resin optical material as claimed in claim 10, wherein the transparent heat-resistant resin optical material is a film in which the copolymer film before stretching is prepared by solution casting or extrusion molding.

16. The transparent heat-resistant resin optical material as claimed in claim 12, wherein the transparent heat-resistant resin optical material is a film in which the copolymer film before stretching is prepared by solution casting or extrusion molding.

17. The transparent heat-resistant resin optical material as claimed in claim 13, wherein the transparent heat-resistant resin optical material is a film in which the copolymer film before stretching is prepared by solution casting or extrusion molding.

18. The transparent heat-resistant resin optical material as claimed in claim 14, wherein the transparent heat-resistant resin optical material is a film in which the copolymer film before stretching is prepared by solution casting or extrusion molding.

19. An optical compensating member for liquid crystal display element, comprising using the transparent heat-resistant resin optical material as claimed in claim 1.